

Barrel Composter

*For small composting operations, the barrel composter is ideal. The composter is easy to build, easy to use, and the compost is easy to turn by simply rotating the drum.

Tools Required

Electric drill
Saws (saber saw with metal-cutting blade and handsaw or circular saw)
Screwdriver
Pliers
Paintbrush

Materials

Lumber-Cut List

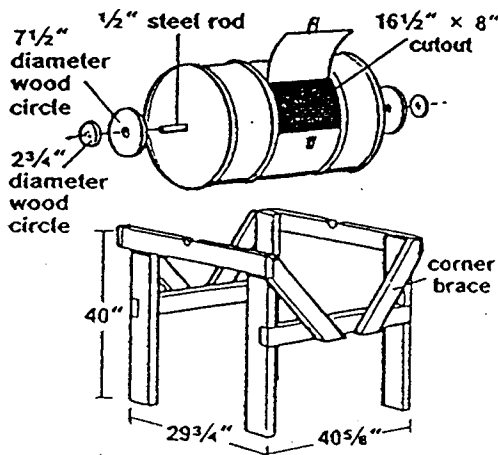
4 pcs. 2" x 4" x 40" (legs)
4 pcs. 2" x 4" x 29 3/4" (frame)
2 pcs. 1" x 3" x 40 5/8" (cross braces)
4 pcs. 1" x 3" x 23 3/4" (corner)
2 pcs. 3/4" x 7 1/2" diameter wood circles (bearings)

Hardware

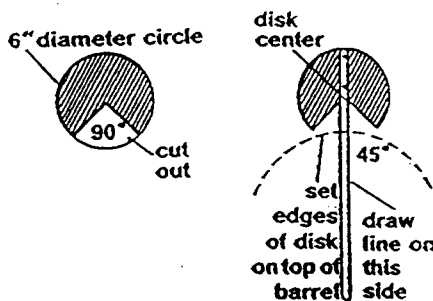
1 55-gallon drum (composter)
2 hinges, 1 1/2" x 2"
1 small hasp
1 steel rod, 1/2" x 40 1/2"
8 stove bolts, 1/4" x 1 1/4"
12 stove bolts, 1/4" x 1"
28 wood screws, #10 x 1 1/2"
1 pint black rust-retardant paint

Construction

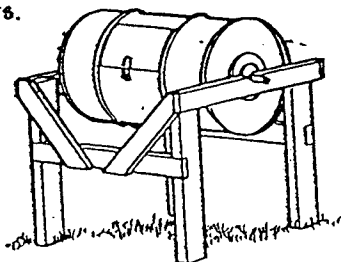
1. Obtain a 55-gallon drum that has not been used for toxic chemicals. (Paint barrels are ideal.)
2. Drill a 1/2-inch hole in the exact center of each end of the drum, to accommodate the 1/2-inch steel rod. Make a simple gauge to find the center by cutting a 6-inch-diameter circle out of heavy cardboard or wood. Mark the exact center of the circle, and cut out a 90-degree wedge. Attach a piece of wood so that one edge bisect the cut-out wedge. Hold the gauge with the cut-out edge against the edge of the drum. Draw a line where the piece of wood bisects the end of the drum. Move the gauge 90 degrees, and



draw another line. The intersection of these lines will be the exact center.



3. Draw the lines for the opening in the barrel, making sure to round the corners slightly. Drill a 1/4-inch hole somewhere along one of the lines, to start the saber saw. If your barrel has ribs, cut a 1-inch V notch on each rib to facilitate opening the door. Attach the hinges and the hasp to the barrel and lid with 1/4 by 1-inch stove bolts.



4. From 3/4-inch pine, cut two 7 1/2-inch-diameter circles (bearings) and

two 2 3/4-inch-diameter circles. Drill a 1/2-inch hole in the center of each, and apply glue to the 2 3/4-inch circles. Glue each 2 3/4-inch circle to a 7 1/2-inch one. (It's a good idea to temporarily slip them over the 1/2-inch steel rod and clamp them.) After the glue has dried, remove the bearings, insert the rod through the barrel, and assemble as shown in the illustration. Use four 1/4 by 1-inch stove bolts in each bearing to bolt it to the drum.

5. To build the support frame, use a corner lap joint to fasten the legs to the horizontal pieces. (To make a corner lap joint, simply remove one-half the thickness of the stock to a length comparable to the width of the stock on the ends of both pieces to be joined.) Use two #10 by 1 1/2-inch wood screws in each joint. Cut grooves (dadoes) on the legs 23 inches from the bottom to fit the 1 by 3-inch cross braces. Cut 45-degree angles at both ends of the 23 3/4-inch-long corner braces, and attach them across corners, as shown, with #10 by 1 1/2-inch wood screws. Cut a 1/2-inch notch in the center of each top horizontal piece to accommodate the rod.

6. Drill several rows of 1/4-inch holes along the bottom of the barrel underneath the door opening, to eliminate excess moisture. Paint the barrel unit inside and out with black, rust-retardant paint.

*Be certain that the wood you use is either pre-treated or you treat it yourself.